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NOTES ON THE BIOLOGY OF
LAMPROPTERA CURIUS WALKERI MOORE
(LEPIDOPTERA; PAPILIONIDAE)

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DR. AND MRS. J. CAREY-HUGHES VISITED the Department of Entomology of the Natural History Museum in December 1967 and asked if there were any butterflies in Hong Kong whose life-histories needed investigation. It was suggested that they might try and rear *Lamproptera curius walkeri* Moore as there seemed to be some points which needed clarification concerning its early stages and the relationship of the genus *Lamproptera* (Tribe *Leptocircini*) with the remaining *Papilionidae* (see Munroe, 1961:7 and Munroe & Ehrlich, 1960:173).

On their return to Hong Kong, they succeeded in breeding this interesting butterfly from the egg and sent the following notes which they have been kind enough to allow me to submit for publication.

Though Mell (1938:340-1, pl. 7, figs 9, 9a, 18) described and figured the immature and mature larva and pupa in colour of this subspecies, from China, unfortunately the figures do not show much detail and it is hoped that these notes and the reproductions of the excellent colour photographs made by Dr. Carey-Hughes, together with Mell's detailed descriptions will be of interest to those concerned with biology and the higher classification of the *Papilionidae*.

Dr. Carey-Hughes wrote on 18th November 1968 as follows:

"There are probably five broods per year in Hong Kong and we believe the insect to be locally not uncommon where its food plant *Illigera platyandra* Dunn family *Hernandiaceae*, occurs. (Mell gives *Illigera rhodantha* Hance as a food-plant.) This is a climbing shrub with composite leaves of three leaflets. The eggs are laid on both surfaces of the leaves. The osmaterium (of the larva), in the early stages at least, is translucent. The larvae pupate on the side of the leaf away from the light and while

under natural conditions this is usually the underside, in our breeding conditions many pupated on the upperside of the leaf too. The flight of the insect is *not* like a dragonfly which is darting, but more sedate and the wing beats are not so rapid.

Our breeding notes for May follow:

- 8.5.68 Female observed laying on *Illigera platyandra* Dunn, four eggs were taken. Eggs are translucent white, smooth spherical and laid on the upper and undersides of the leaves. 0.75-0.8 m.m.
- 12.5.68 All four eggs hatched early morning. Larva is hairy, single fine hairs which divide at the tip. The body is greyish in colour with a hint of green. The head is translucent and yellowish.
- 14.5.68 Entered 2nd. instar overnight. Larva 4 mm. long, head a definite yellow and the body is covered with very short pale hairs. It has taken on the 'Moby Dick' shape, the back being much darker greenish grey and flecked with tiny black spots.
- 17.5.68 Larva now 9 mm. long and has become much blacker on the back. The underside is a pale lime green.
- 18.5.68 Moulded overnight and now in the third instar, much darker.
- 19.5.68 Larvae now measure 13 mm. and 14.5 mm.
- 20.5.68 Moulded during afternoon, the larvae are now in their fourth instar. They are green with tiny black specks. Immediately after the moult one measured 17 mm.
- 24.5.68 Both larvae were 23 mm. long, commenced pupating during the evening. They spin a bed of silk first and then the girdle.
- 25.5.68 Both had completed pupation. They pupate head up on either side of the leaf but away from the light.
- 3.6.68 Both hatched this morning. They appear to have taken two days longer than normal, probably due to the cold spell.

The insect had not been recorded on Hong Kong Island since Walker but was seen by Packer on the south side of the Island on 27th April 1963."

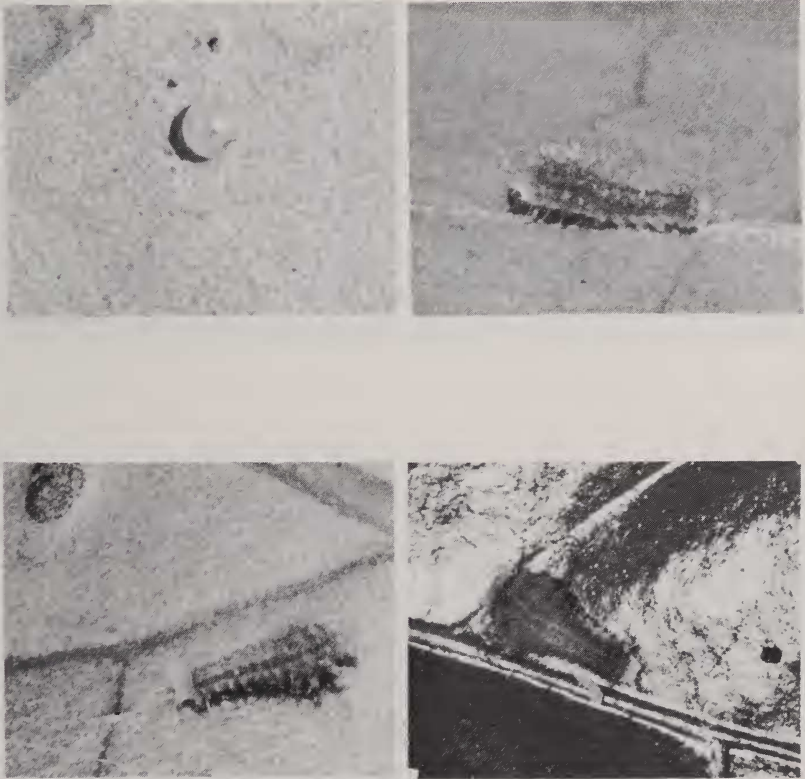


Fig. 1. *Lamproptera curius* egg on underside of food plant *Illigera platyandra*. 0.75-0.8 mm.

Fig. 2. *L. curius*, first instar.

Fig. 3. *L. curius*, first instar.

Fig. 4. *L. curius*, second instar, just after first moult.

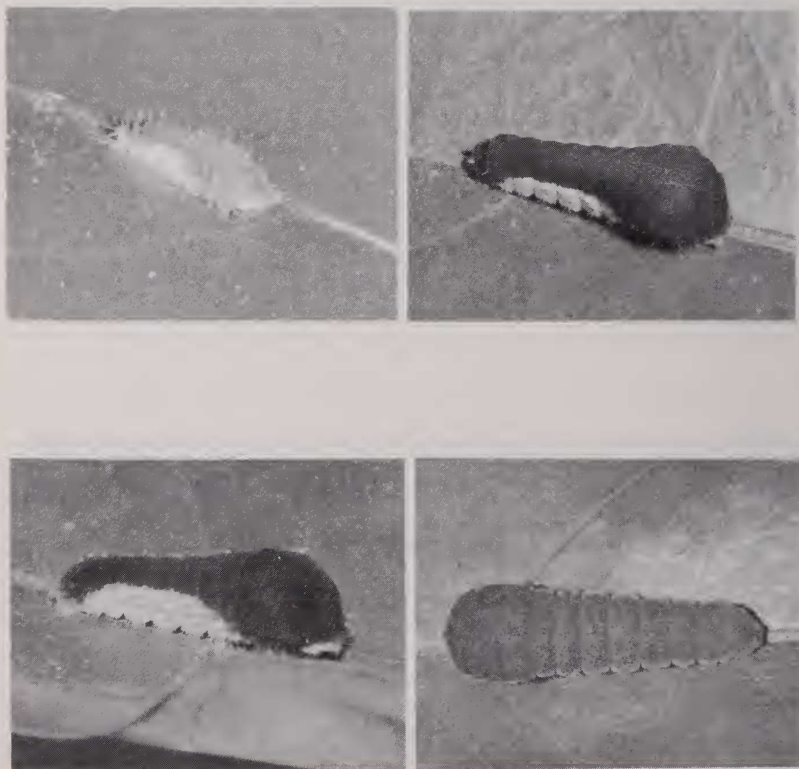


Fig. 5. *L. curius*, second instar, just after moult.

Fig. 6. Third instar.

Fig. 7. Third instar.

Fig. 8. Final instar.

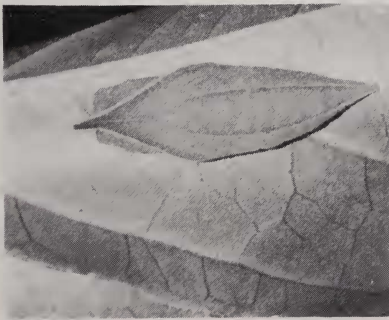


Fig. 9. *L. curius*, final instar.

Fig. 10. Pupating.

Fig. 11. Pupa.

Fig. 12. Pupa.

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